

MIDWEST COMPONENTS, INC.

Components For The Control Of Energy

The leadless SMS™ Tempsistor® is designed for applications where surface mounting is required. The Tempsistor® is a temperature compensator designed to offset the temperature drift of metallic and silicon based semi-conductors. Applications include pressure transducers, opto amplifiers, inductive motor controllers, and automatic gain controls. Small size can replace 1/8 watt or larger resistor. The leadless SMS™ -Series is also available on tape and reel for automatic surface mounting.

TEMPSISTOR® SPECIFICATIONS

DISSIPATION CONSTANT - (Design circuit so that this value is not exceeded.)

Style 1KS and 2KS=2.5 MW/°C

Style 3KS=5 MW/°C

TIME CONSTANT - *

Style 1KS and 2KS= 8 sec. in still air, 1 sec. in rapidly stirred oil.

Style 3KS= 19 sec. in still air, 2.2 sec. in rapidly stirred oil.

STANDARD ZERO-POWER RESISTANCE VALUES (Ohms) at 25°C AMBIENT TEMPERATURE

10	11	12	13	15	16	18	20	22	24	27	30
100	110	120	130	150	160	180	200	220	240	270	300
1000	1100	1200	1300	1500	1600	1800	2000	2200	2400	2700	3000
10000	11000	12000									
33	36	39	43	47	51	56	62	68	75	82	91
330	360	390	430	470	510	560	620	680	750	820	910
3300	3600	3900	4300	4700	5100	5600	6200	6800	7500	8200	9100

PART NUMBER DESIGNATION:

XXX-XXX-X

SPECIFY ONE OF THREE CHOICES FOR FIRST 2 DIGITS

1KS-Resistance range 10-820 Ω .150" long body Max. Operate Temp. 150° C.

2KS-Resistance range 1K-3.0K Ω .150" long body Max. Operate Temp. 125° C.

3KS-Resistance range 3.3K-12K Ω .350" long body Max. Operate Temp. 100° C.

ALL STYLES WILL WITHSTAND 400° C. WITHOUT PHYSICAL OR ELECTRICAL DAMAGE.

NEXT 3 DIGITS DENOTE RESISTANCE VALUE AT 25° C.

1st digit denotes 1st significant figure

2nd digit denotes 2nd significant figure

3rd digit denotes multiplier by the power of 10

LAST DIGIT OF PART NUMBER DENOTES TOLERANCE AT 25° C.

L—± 20% K—± 10% (standard) J—± 5%

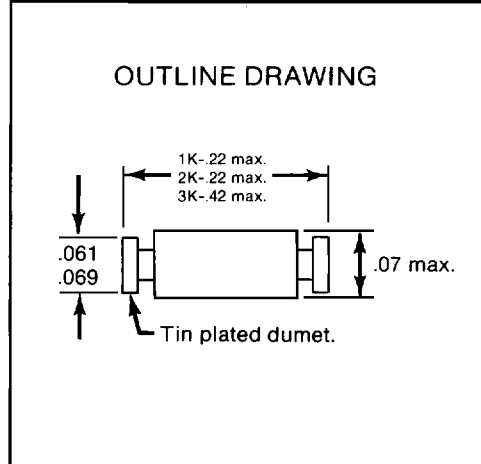
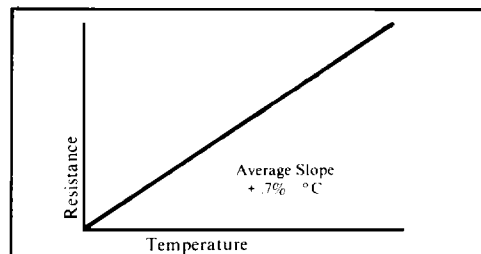
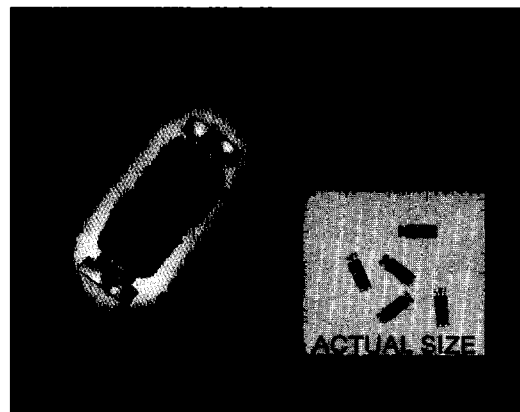
EXAMPLE OF PART NUMBER SPECIFICATION

2KS-272-K

Part would be a .150" long body, 2.7K Ω ± 10% @ 25° C.

OTHER TOLERANCES AND MATCHED PAIRS AVAILABLE UPON REQUEST.

*Time required for a Thermistor to change 63.2% of the temperature difference between its initial and final body temperature, when subjected to a step function change in temperature under zero-power conditions.



*** Resistance Ratio Temperature Characteristics					
Temp.		R / R Multiplier			
		RESISTANCE VALUES (Ohms)			
°C	°F	10-56Ω	68-820Ω	1-3.0KΩ	3.3-12 KΩ
-25	-13	.73	.65	.65	.61
0	32	.86	.82	.81	.83
25	77	1.00	1.00	1.00	1.00
50	122	1.15	1.21	1.20	1.17
75	167	1.32	1.43	1.41	1.34
100	212	1.49	1.67	1.63	1.50
125	257	1.68	1.94	1.75	—
150	302	1.89	2.21	—	—

To find the resistance of a particular Tempsistor® at any temperature in this table, multiple its 25°C resistance by the multiplier for that temperature.